ABSTRACT

The present invention is a fully automated modified batch dyeing process that provides a process that reduces water consumption, reduces environmental pollution, and reduces the energy and chemical consumption of the conventional batch dyeing process through efficient reuse of spent dyebath. The invention provides a holding tank which stores the spent dyebath, and an analysis system which allows for the analysis of the dyebath in the holding tank so that the dyebath may be reconstituted and used in the batch dyeing process.